

SYSTEM AND METHOD FOR MEMORY FAILURE RECOVERY USING LOCKSTEP PROCESSES

ABSTRACT OF THE DISCLOSURE

A system and method for memory failure recovery is disclosed. The method discloses the steps of maintaining a predetermined number of duplicate and primary processes; keeping the processes in synchronization; managing the processes so that a single process image is presented to an external environment; detecting a computer system exception which affects one of the processes; and terminating the affected process. The system discloses, a primary process memory space which hosts a primary process; a duplicate process memory space which hosts a duplicate process corresponding to the primary process; a synchronization buffer which keeps the duplicate process in synchronization with the primary process; a processor which generates an exception signal in response to detection of a memory failure condition which affects the primary process; and an operating system which receives the exception signal, terminates the affected primary process, and maintains a predetermined number of primary and duplicate processes.

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